

ones are either rejected or ingeniously relegated to such a subordinate position that they are likely to be altogether lost sight of.

The work is illustrated by a few woodcuts in the text and fifty plates; some of these are from photographs of dry or spirit specimens, others, representing the minute structures &c., have been drawn by the author. These latter in many instances are somewhat crude in appearance; but their lack of artistic merit may perhaps be compensated by greater accuracy of detail. Dr. von Lendenfeld may be congratulated on his good fortune in obtaining the assistance of the Royal Society to bring out such an important and, judging from the price set upon it, expensive publication.

MISCELLANEOUS.

On the Discovery of a Jurassic Fish-Fauna in the Hawkesbury Beds of New South Wales. By A. SMITH WOODWARD*.

A LARGE collection of fossil fishes from the Hawkesbury-Wianamatta series of Talbragar, New South Wales, has been forwarded to the author for examination by Messrs. C. S. Wilkinson and R. Etheridge, Jun., of the Geological Survey of New South Wales. The final results will appear in a forthcoming memoir to be published by that Survey; but the investigation has already proceeded so far as to justify the announcement of the discovery of a typically Jurassic fish-fauna in Australia. Fine examples of the Palæoniscid genus *Coccolepis* occur, and this has previously been met with only in the Lower Lias of Dorsetshire, the Purbeck Beds of Wiltshire, and the Lithographic Stone of Bavaria. A new fish allied to *Semionotus*, but with thinner, much imbricating scales, is also conspicuous; and another new form, allied to the Dapedioids, is remarkable from the presence of typical rhombic ganoid scales in the front half of the trunk and deeply overlapping cycloid scales over the whole of the caudal region. A *Leptolepis*-like fish, with a persistent notochord, seems to represent a third unknown generic type. Of *Leptolepis* itself there are many hundreds of individuals in a fine state of preservation. The fishes occur in a hard, ferruginous, fissile matrix associated with well-preserved remains of plants.

The Fossil Fishes of the Hawkesbury Series at Gosford, New South Wales. By A. SMITH WOODWARD†.

Some years ago an early Mesozoic fish-fauna was discovered in a bed of dark grey shale in the Hawkesbury Formation at Gosford, New South Wales, and the collection was forwarded to the author for determination. The present memoir comprises the results of

* Abstract of paper read before Section C, British Association, Leeds, 1890.

† Abstract of no. 4 of the 'Palæontological Memoirs of the Geological Survey of New South Wales,' Sydney, 1890.